

Publications Committee

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OF TEXAS LIBRARY

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AUGUST 1, 1909

ANNOUNCEMENTS

*Relating to the Work
of the*

Department of Extension

I. CORRESPONDENCE DIVISION

II. PUBLIC DISCUSSION AND INFORMATION DIVISION

III. LECTURE DIVISION



THE UNIVERSITY
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PUBLICATIONS

OF THE

UNIVERSITY OF TEXAS

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The publications of the University of Texas are issued twice a month. For postal purposes they are numbered consecutively as Bulletins without regard to the arrangement in series. With the exception of the Special Numbers any Bulletin will be sent to citizens of Texas free on request. Communications from other institutions in reference to exchange of publications should be addressed to the University of Texas Library.

THE RECORD is regularly mailed free to Alumni and Ex-Students of any department of the University who request it, and it is especially designed to keep them informed as to the happenings and progress of the University. Any citizen of Texas will be sent a copy upon request; and if he so desires, his name will be added to the regular mailing list. Notices of change in address should be sent to THE UNIVERSITY OF TEXAS RECORD, Austin, Texas.

THE UNIVERSITY OF TEXAS MINERAL SURVEY BULLETIN

1. *Texas Petroleum*, by W. B. Phillips. 102 p., pl., maps. July, 1900. \$1. Out of print.
2. *Sulphur, Oil and Quicksilver in Trans-Pecos Texas, with Report of Progress for 1901*, by W. B. Phillips. 43 p., pl., map. February, 1902. 50 cents. Out of print.
3. *Coal, Lignite and Asphalt Rocks*, W. B. Phillips. 137 p., illus., pl., maps. May, 1902. \$1. Out of print.
4. *The Terlingua Quicksilver Deposits, Brewster County*, by B. F. Hill and W. B. Phillips. 74 p., illus., pl., map. October, 1902. 50 cents. Out of print.
5. *The Minerals and Mineral Localities of Texas*, by F. W. Simonds. 104 p. December, 1902. 75 cents. Out of print.
6. *The Mining Laws of Texas; Texas Mineral Lands*, W. B. Phillips, and Tables of magnetic declination for Texas. 37 p. July, 1903. 25 cents.
7. *Report of Progress for 1903*, by W. B. Phillips. 14 p., map. January, 1904. 25 cents.
8. *The Geology of the Shafter Silver Mine District, Presidio County, Texas*, by J. A. Udden. 60 p., illus., map. June, 1904. 50 cents.
9. *Report of a Reconnaissance in Trans-Pecos Texas North of the Texas & Pacific Railway*, by G. B. Richardson. 119 p., pl., map. November, 1904. 75 cents.

Geological map of a portion of West Texas, showing parts of Brewster, Presidio, Jeff Davis, and El Paso counties, and south of the Southern Pacific R. R., by Benj. F. Hill and J. A. Udden. 16 by 50½ inches. 1904. 20 cents.

ANNOUNCEMENTS

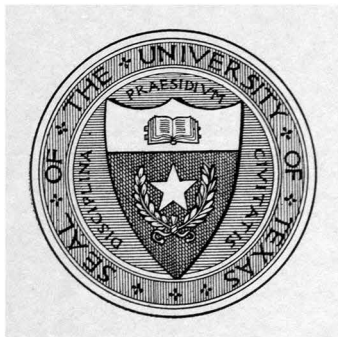
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Cultivated mind is the guardian genius
of democracy. . . . It is the only dic-
tator that freemen acknowledge and the
only security that freemen desire.

President Mirabeau B. Lamar.

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DEPARTMENT OF EXTENSION

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MARY ELIZABETH DECHERD, M. A., *Tutor in Pure Mathematics.*
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JAMES A. CORRELL, B. S., *Tutor in Electrical Engineering.*
LOUISE MARIE SPAETH, B. A., *Tutor in German.*
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ALFRED DAVIS BRODIE, C. E., *Tutor in Pure Mathematics.*
FREDERICK EBY, PH. D., *Instructor in History of Education.*

OBJECT OF THE DEPARTMENT OF EXTENSION.

The object of the Department of Extension, created by the Board of Regents of the University at their meeting in June, 1909, is to extend, as far as means permit, the advantages of the University to persons who desire to do university work while living away from the University. Owing to lack of funds the Board was able to provide for only a modest beginning, the Department will be able to extend its services to a limited number of individuals only, and it must, to a very large extent, be self-supporting. Nevertheless, it is hoped that many who are unable to take up work in residence will be able to avail themselves of the opportunity now presented to profit by university instruction while remaining at home. By the creation of this Department the Board of Regents hopes to increase the usefulness of the University to the people of Texas, and expects the Extension work thus modestly begun to grow greatly as time advances.

It is planned to conduct the work of the Department of Extension in three divisions:

- I. Correspondence Division.
- II. Public Discussion and Information Division.
- III. Lecture Division.

I. CORRESPONDENCE DIVISION.

GENERAL INFORMATION.

A. TEACHING BY MAIL.

Teaching by correspondence has already successfully passed the experimental stage; while such teaching lacks some of the advantages of class room instruction there are substantial compensations. In correspondence instruction the teaching is quite personal; each student comes in contact with the teacher as an individual, and has full opportunity to discuss in writing each difficulty that is met. This written discussion alone affords valuable training. The teacher can direct the work of the student and correct written exercises almost as well by mail as in any other way. Correspondence work enables one to utilize spare time to great advantage, and develops initiative, self-reliance, perseverance, and accuracy.

B. METHOD OF INSTRUCTION.

A correspondence course will furnish a systematic presentation of a subject in from ten to twenty-five lessons, and something like a hundred hours of work will be required for the average student to master a course. The rapidity with which a student can master a correspondence course will depend on the diligence, ability, and preparation of the individual concerned.

Each lesson will contain (1) a very definite assignment of the work from the text and reference books; (2) directions and suggestions concerning the study of the assignment, and (3) questions to test the student's mastery of the lesson assigned.

After preparing the lesson the student will write out careful answers to the questions, and will make as clear a presentation as possible of all the difficulties that oppose progress. After being received by the instructor, the answers will be promptly corrected, the difficulties will be especially explained, and the answers returned to the student. In this way a correspondence student gets personal advice and instruction throughout the course.

C. ADMISSION.

No entrance examination will be required of applicants for correspondence courses; but, before allowing a student to register for a

course, the University will require that certain information be furnished upon a formal application blank, and will reserve the right to reject the application if the data furnished on the blank justify such action. If the application for a course be rejected, the fee for the course will be returned. Registration for correspondence courses may take place any time after October 1.

D. STUDENTS.

The courses offered are intended to appeal particularly to (1) teachers who desire to improve their scholarship along special lines; (2) college students who are unable to take all the course for a degree in residence; (3) ministers, and professional and business men who desire to take courses that will help them in their special work; (4) members of religious, women's, farmers', debating, literary, and business clubs and labor unions; (5) other persons interested in literary and scientific topics.

E. COURSES.

The list of courses which follows is as complete as it is at present possible to make it. Students who desire courses which are not on the list should write to the Director, stating their desires as accurately as possible. It will be possible in some of these special cases to give the correspondence course desired.

F. CREDITS.

Each correspondence course will include the amount of work required in one third of a course taken in residence at the University.

With a few exceptions, each correspondence course will follow as closely as possible some third of a course offered to resident students and in such cases will count one third of a course toward a degree upon precisely the same terms as the corresponding work done in residence, subject to the following restriction:

Not more than half of the courses required for any degree may be done by correspondence, and no degree will be conferred without a residence of at least one year at the University.

The requirements for a degree are not modified when some of the courses required for the degree are done by correspondence work, but remain precisely as set forth in the catalogue of the University.

To secure credit toward a degree the student in a correspondence course must pass an examination on the course either at the University or at some designated place and time. The examination paper will be

graded similarly to those handed in at the regular term examinations at the University.

If a student does not desire credit toward a degree the examination need not be taken.

Correspondence courses will count as elementary, advanced, or graduate, according as the corresponding residence work is elementary, advanced, or graduate.

G. FEES.

The fee for each correspondence course will be \$7.00, payable in advance.

The necessary text-books and equipment must be purchased by the student, who must also pay the postage one way on the lesson papers. The University pays the postage the other way.

If a student fails to complete a correspondence course the fee is not returnable.

If a student fails to complete a correspondence course within one year or if after the date of registration three months pass without the student sending in lesson papers, and if the student desires to complete the course, he must register for it again, paying a second fee.

Private arrangements for extension of time between student and instructor will not be recognized.

Diligence in pursuing a correspondence course being essential to the progress of the student, these regulations are of benefit to correspondence students.

Money should be sent by postal or express orders or by checks payable at any of the large Texas cities and should be made payable to the Secretary of the Department of Extension.

H. BOOKS, ETC.

Text-books, maps, etc., for use in the various courses may be obtained from the University Co-operative Society, University Station, Austin, from the publishers, or from local dealers. Estimates and prices will be furnished on application. *In exceptional cases*, some of the books needed may be borrowed for short intervals from the University Library. Applications for such loans should be addressed to the Librarian of the University.

The equipment, other than books and maps, in some of the correspondence courses can be best purchased after consultation with the instructor in charge of the course.

I. METHOD OF REGISTRATION.

Students desiring to take one or more correspondence courses should *Write to the Director of the Department of Extension for registration cards.*

In doing so be sure to give full name and address.

On receiving these cards from the Director the prospective student should *Fill out and return a separate registration card for each course desired, giving all the information asked for on each card. Enclose \$7.00 with each card.*

With the exception of "Remarks" and the items below the heavy line each blank space *must* contain its appropriate information.

When these cards, properly filled, have been returned to the Director at Austin, they will be submitted for approval to the instructors giving the desired courses.

In case of approval the student will be registered for the course and will be furnished promptly by the instructor with complete directions for beginning the work, after which there will be an interchange of lesson papers and answers between instructor and student until the course is finished.

In case an instructor decides that a prospective student is not qualified to take his course the fee will be returned. Very often in such cases, however, the student may be advised as to what courses can be profitably undertaken, and can of course accept or reject such advice at pleasure.

LIST OF CORRESPONDENCE COURSES.

APPLIED MATHEMATICS.

4f. POPULAR ASTRONOMY.

This will be a culture course for those desiring a general knowledge of descriptive astronomy. Despite the fact that astronomy is a highly developed and specialized science a valuable knowledge of it may be gained by the general student who knows but little of mathematics, physics, or chemistry. Excellent text and reference books exist which a student who has a high-school training in mathematics can read without serious difficulty.

When demanded an additional course in astronomy may be offered.

Professor BENEDICT.

BOTANY.

1. ELEMENTARY PHYCOLOGY.

A consideration of type forms of the principal groups of fresh water and marine algæ in the following order: 1, blue-green algæ; 2, brook silks and desmids; 3, diatoms; 4, green algæ; 5, brown algæ or rock weeds and kelps; 6, red algæ; 7, the stone worts. This is an elementary course and is equivalent to the first third of Botany 16. Work covering the remainder of Botany 16 will be offered after the above has been completed.

Professor HEALD.

2. SEED PLANTS.

A study of the general morphology and classification of seed plants with a consideration of types selected to illustrate natural relationships. Field and laboratory study.

Professor HEALD.

3. ELEMENTARY PLANT PATHOLOGY.

The course will include a study of symptoms of disease in plants mainly from field work with a study of the causal organisms in the laboratory. Open only to those students who have completed the part of Botany 16 dealing with fungi, or to those who have had equivalent work.

Professor HEALD.

NOTE.—Only those who have the use of a compound microscope (one with $\frac{3}{8}$ and $\frac{1}{6}$ objective and 1-inch eye piece are equivalent) will be permitted to register for correspondence work outlined above.

CIVIL ENGINEERING.

2f. LAND SURVEYING.

Full instruction in principles of surveying land, calculating areas, use of compass, chain, tape, divisions of land, tracing old lines, changes in variation (declination) of needle.

A knowledge of trigonometry is required of those who take this course.

Mr. FINCH.

2w. GOVERNMENT LAND SURVEYING.

Location of meridians by sun and north star, U. S. Government methods. Use of transit.

Course 2f is a prerequisite.

Mr. FINCH.

2s. RAILROAD SURVEYING.

Study of railroad surveying in preliminary and location surveys, use of level profiles, maps of line, contours, earthworks.

Adjunct Professor BANTEL.

34. HYDRAULICS.

(Required trigonometry, analytics, and calculus.)

Principles of the hydraulics including amount of pressure, center of pressure, flow of water through orifices, standard tubes, pipes, in open channels and over different kinds of weirs; water power; water motors.

Professor TAYLOR.

15s. SANITARY ENGINEERING.

(Chemistry 1 and Civil Engineering 34 are prerequisite.)

Adjunct Professor BANTEL.

25w. IRRIGATION ENGINEERING.

Professor TAYLOR.

31s. GRAPHICS AND DESIGN.

This course will take up in brief the following: force polygon, equilibrium polygon, graphic conditions of equilibrium, graphic determination of reactions, stresses for symmetrical and unsymmetrical roof trusses, both simple and ambiguous cases, complete design of steel roof truss.

A course in mechanics is prerequisite.

Mr. FINCH.

DRAWING.

12f. MECHANICAL DRAWING.

Use of ruling pen, compass in drawing geometric figures, four plates 18x24 inches. Neat freehand lettering will be a fundamental requirement.

Mr. WAGNER.

12w. MECHANICAL DRAWING.

Drawing from dimensions, and models. Four plates 18x24 inches. Better lettering.

Continues 12f.

Mr. WAGNER.

12s. MECHANICAL DRAWING.

Continues Course 12w.

Mr. WAGNER.

EDUCATION

I. EDUCATIONAL ADMINISTRATION.

5f. HISTORY OF EDUCATION.

In this course a preliminary survey is made of primitive and oriental culture. Greek and Roman civilization and education form the major part of the work, and must be studied intensively. Special attention is likewise directed to the influence which Greek culture exerted upon Roman civilization. In addition to the routine work, an essay upon some phase of Greek or Roman education, agreed upon by the instructor, is required. The course covers the material of the fall term of Education 5, as published in the regular catalogue. It is open only to advanced University students that have completed Education 3 and 4, and it will be accepted for the B. A. and the M. A. degrees. A syllabus of the work can be obtained upon application. In the syllabus the student will find fuller information regarding the course.

Professor SUTTON.

Dr. EBY.

P. HISTORY OF EDUCATION.

For the accommodation of those students who do not seek University credit, a more popular course in history of education is offered. The same period will be studied as in Education 5, but with much less of technical detail, and without the requirement of a thesis. The syllabus for this course will be adapted to meet the needs of beginners in the study of the history of education. This course is designed for those students who for any reason may be interested in the historic development of education, but especially for teachers and others who wish to prepare for State examinations in this subject.

Professor SUTTON.

Dr. EBY.

II. PSYCHOLOGY OF EDUCATION.

3f. THE PSYCHOLOGY OF EDUCATION.

This course deals with those phases of psychology which throw light upon the problems of education, both those of the school and of the general educative work of life incident to parenthood and to all kinds of leadership among men. The following topics will be studied: association, memory, imagination, perception, conception, sensation, the nervous system, habit, and instinct.

This course is the same as Education 3f (see University catalogue), except that a thesis is required in place of ten laboratory periods. It will be accepted in lieu of Education 3f and together with Education 3w will be counted as two thirds of a course credit toward a University degree and teacher's certificate.

Professor ELLIS.

3w. THE PSYCHOLOGY OF EDUCATION.

This course is a continuation of Education 3f, and deals with the following topics: emotion, interest, attention, discrimination, reason, personality, will.

This course is the same as Education 3 in the winter term and will be accepted in its stead. Together with Education 3f it will be counted as two thirds of a course credit toward a University degree and teacher's certificate.

Professor ELLIS.

4s. CHILD STUDY.

This course is intended for teachers, parents, and all others who have to deal with children. In this course are studied those changing phases of physical and psychical life through which the young must pass in the process of growth and development. The scope of the course is fairly indicated by the following topics which are treated: aims and methods of studying children; general laws of body growth, of brain growth, of mental growth; nascent periods; retardation periods; vestigial organs; development periods; imitation and suggestion; stubbornness; plays and games; social instincts; literary tastes; attitudes of children toward discipline and punishment.

This course is the same as Education 4 in the spring term, will be accepted in its stead, and will be counted as one third of a course credit toward a University degree and teacher's certificate.

Professor ELLIS.

17f. THE PHILOSOPHY OF EDUCATION.

In this and the two following courses will be studied the growth of those philosophical and psychological ideas that have underlain and con-

ditioned the various great systems of education. It will not be a study of methods of teaching, but an attempt to determine the ultimate aims and fundamental principles of education. In this course will be studied the philosophies of education advanced by Socrates, Plato, Aristotle, and the early Churchmen.

This course is an "Advanced" course, is the same as the fall term of Education 17, and counts as one third of a course credit toward a University degree and teacher's certificate. It should be undertaken only by those of mature mind and serious purpose, who know something of the psychology of education and of the history of education.

Professor ELLIS.

17w. THE PHILOSOPHY OF EDUCATION.

This course is a continuation of Education 17f, and deals with the contributions to the philosophy of education made by Bacon, Comenius, Locke, Kant, Fichte, Schelling, Schiller and Hegel.

This is an advanced course, is the same as the winter term of Education 17, and counts as one third of a course credit toward a University degree and teacher's certificate.

Professor ELLIS.

17s. THE PHILOSOPHY OF EDUCATION.

This course is a continuation of Education 17f and 17w and deals with the contributions to the philosophy of education made by Herbart, Rousseau, Froebel, Spencer, and G. Stanley Hall.

This is an advanced course, is the same as the spring term of Education 17, and counts as one third of a course credit toward a University degree and teacher's certificate.

Professor ELLIS.

7. EDUCATION SEMINAR.

This course is for graduate students, well trained in education, who wish to study special topics and conduct investigations of pedagogical problems. The topics of study and plans of investigation will be arranged in each case to meet the needs of the students.

Professor ELLIS.

ELECTRICAL ENGINEERING.

18. ELEMENTS OF ELECTRICAL ENGINEERING.

An elementary treatment of magnetism and electricity which will show the scope of Electrical Engineering in general and serve as a preliminary to the deeper study of the theory and operation of direct current and alternating current electric machinery.

Professor SCOTT.

1A. APPLIED ELECTRO-MAGNETISM.

A discussion of electro-magnets; the theory of operation and regulation, and the practical construction, management, and methods of testing direct current dynamos and motors.

Mr. KENYON.

1B. APPLIED ELECTRO-MAGNETISM.

A study of types, uses, and installations of storage batteries; wiring for light and power, including subway and underground methods.

Mr. KENYON.

1C. APPLIED ELECTRO-MAGNETISM.

A study of controlling devices, and types of lamps and meters in direct current electrical engineering practice.

Mr. KENYON.

NOTE.—The three correspondence courses, 1A, 1B, and 1C, just listed are equivalent to Electrical Engineering 1 of the University catalogue, and, therefore, give only two thirds of a credit toward a degree, when successfully completed.

3A. ALTERNATING CURRENTS.

Theory and application of single phase and polyphase currents.

Professor SCOTT.

3B. ALTERNATING CURRENTS.

Operation and testing of alternating current machinery, including alternators, synchronous and induction motors, rotary converters and transformers.

Professor SCOTT.

3C. ALTERNATING CURRENTS.

Theory and operation of electric meters; a discussion of switchboards and controlling devices and apparatus; calculation of high tension transmission lines.

Professor SCOTT.

NOTE.—The three correspondence courses, 3A, 3B, and 3C, just listed, are equivalent to Electrical Engineering 3 of the University catalogue, and, therefore, give only two thirds of a credit toward a degree, when successfully completed.

10A. POWER PLANT ENGINEERING.

A study of the general character of fuels, their calorific value, and economical use for power purposes.

Professor SCOTT.

10B. POWER PLANT ENGINEERING.

The construction, operation, and testing of steam boilers, gauges, injectors, and pumps.

Professor SCOTT.

10C. POWER PLANT ENGINEERING.

A study of the steam engine; valve gears; the steam engine indicator, and its use; indicator diagrams and their significance; valve setting on the Corliss engine; theory, methods of construction and operation of steam turbines; methods of testing engines and turbines.

Professor SCOTT.

10D. POWER PLANT ENGINEERING.

Elementary theory and operation of gas engines, oil engines, and producer gas plants; causes of trouble and remedies therefor; indicating, and calculation of horsepower; methods of testing.

Professor SCOTT.

NOTE.—The four correspondence courses just listed are equivalent to Electrical Engineering 10 of the University catalogue, and, therefore, give only two thirds of a course credit toward a degree, when successfully completed.

20. AUTOMOBILE ENGINES.

Theory and manipulative methods pertaining to these engines; chief sources of trouble and remedies therefor; calculation of horsepower; effect of varying the mixture; indicating; spark coils, magnetos, etc.

Mr. WEAVER.

8A. TELEPHONY.

The construction, equipment, operation, and maintenance of telephone lines.

Mr. CORRELL.

8B. TELEPHONY.

Appliances connected with telephony and electric signaling.

Mr. CORRELL.

NOTE.—The two correspondence courses, 8A and 8B, just listed, are equivalent to Electrical Engineering 8 of the University catalogue, and, therefore, give credit for only one third of a course toward a degree, when successfully completed.

12W. ILLUMINATION.

Photometric methods and the determination of the intensity of illumination.

Professor SCOTT.

12s. ILLUMINATION.

A study of the theory and use of the optical lantern, and the making of lantern slides.

Professor SCOTT.

ENGLISH.

ENGLISH 1f. COMPOSITION.

This course involves (a) a study of the rhetoric of the whole essay, of the paragraph, and of the sentence; (b) the analysis of certain masterpieces of English prose, mainly the essays of Macaulay; and (c) abundant practice in writing. As in all other courses in English Composition in the University, chief stress will be laid on the written work; and each essay will be carefully corrected and returned to the student, with such comments as seem most likely to be helpful. The texts used will be Newcomer's *Elements of Rhetoric*, pp. 1-155 (Holt and Co., New York; price, \$1.25); Hill's *General Rules of Punctuation* (Charles W. Sever and Co., Cambridge; price, 25 cents); *Select Essays of Macaulay* (edited by Samuel Thurber: Allyn and Bacon, Chicago; price, 70 cents); and Nutter, Hersey, and Greenough's *Specimens of Prose Composition* (Ginn and Co., Boston; price, \$1.25). Parallel reading will be required.

Dr. PAYNE.

ENGLISH 1w. COMPOSITION.

This course involves (a) a study of the rhetoric of words and figures, and of exposition and argumentation; (b) the analysis of certain English prose masterpieces, mainly expository and argumentative; and (c) abundant practice in writing. The texts used will be Newcomer's *Elements of Rhetoric*, pp. 156-294 (Holt and Co., New York; price, \$1.25); Nutter, Hersey, and Greenough's *Specimens of Prose Composition* (Ginn and Co., Boston; price, \$1.25); *Selections from Addison* (edited by Wendell and Greenough: Ginn and Co., Boston; price, 80 cents); and *Selections from De Quincey* (edited by M. H. Turk: Ginn and Co., Boston; price, 90 cents). Parallel reading will be required.

The course is a continuation of English 1f., and no student who has not had that work or its equivalent will be admitted to this course without the consent of the instructor in charge.

Mr. BASKERVILL.

ENGLISH 1s. COMPOSITION.

This course is equivalent to and will count as the spring term of English 1 of the regular session. It involves (a) a study of the rhetoric of narration and description; (b) the analysis of certain English prose masterpieces, mainly narrative and descriptive; and (c) abundant practice in writing. The texts used will be Nutter, Hersey, and Greenough's

Specimens of Prose Composition (Ginn and Co., Boston; price, \$1.25); *Hawthorne* ("Little Masterpieces Series," edited by Bliss Perry: Doubleday, Page, and Co., New York; price, 50 cents); Thackeray's *Henry Esmond* (T. Y. Crowell and Co., New York; price, 40 cents); *Essays of Robert Louis Stevenson* (edited by W. L. Phelps: Charles Scribner's Sons, New York; price, 75 cents). Parallel reading will be required.

The course is a continuation of English 1w., and no student who has not had that work or its equivalent will be admitted to this course without the consent of the instructor in charge.

Dr. PAYNE.

ENGLISH 2f. ENGLISH LITERATURE FROM CAEDMON TO SHAKESPEARE.

The aim of this course is to give the student a general view of the history and development of English literature from Caedmon to Shakespeare. A text-book presenting the literary history of the period will be used, but most of the time will be devoted to a first-hand study of representative works of the authors dealt with. Parallel reading and essays will be required. Works of the Old English and of the Middle English periods will be studied in translations or in modernized versions. The following text-books will be used: Pancoast's *Standard English Poems*, pp. 1-87 (Holt and Co., New York; price, \$1.50); Crawshaw's *The Making of English Literature*, chapters 1-VIII (D. C. Heath and Co.; price, \$1.25); Cook and Tinker's *Translations from Old English Poetry* (Ginn and Co., Boston; price, \$1.00); *Beowulf* (translated by C. G. Child: Houghton, Mifflin, and Co., Boston; price, 25 cents); Greenlaw's *Selections from Chaucer* (Scott, Foresman, and Co., Chicago; price, 40 cents); Langland's *Piers the Plowman Done into Modern English* (by W. W. Skeat: Chatto and Windus, London; price, 60 cents).

Prerequisite: English 1.

Adjunct Professor GRIFFITH.

ENGLISH 2w. ENGLISH LITERATURE FROM SHAKESPEARE TO THOMSON.

The aim of this course is to give the student a general view of the history and development of English literature from Shakespeare to Thomson. A text-book presenting the literary history of the period will be used, but most of the time will be devoted to a first-hand study of representative works of the authors dealt with. Parallel reading and essays will be required. The following text-books will be used: Pancoast's *Standard English Poems*, pp. 88-193 (Holt and Co., New York; price, \$1.50); Crawshaw's *The Making of English Literature*, chapters IX-XI (D. C. Heath and Co., New York; price, \$1.25); Thayer's *Best Elizabethan Plays* (Ginn and Co., Boston; price, \$1.25); Shakespeare's

Macbeth (edited by E. K. Chambers: D. C. Heath and Co., Boston; price, 25 cents); Shakespeare's *As You Like It* (edited by J. C. Smith: D. C. Heath and Co., Boston; price, 25 cents); Shakespeare's *Twelfth Night* (edited by A. D. Innes: D. C. Heath and Co., Boston; price, 25 cents).

Prerequisite: English 1.

Adjunct Professor GRIFFITH.

ENGLISH 2s. ENGLISH LITERATURE FROM THOMSON TO TENNYSON.

The aim of this course is to give the student a general view of the history and development of English literature from Thomson to Tennyson. A text-book presenting the literary history of the period will be used, but most of the time will be devoted to a first-hand study of representative works of the authors dealt with. Parallel reading and essays will be required. The following text-books will be used: Pancoast's *Standard English Poems*, pp. 194-577 (Holt and Co., New York; price, \$1.50); Crawshaw's *The Making of English Literature*, chapter XII to the end (D. C. Heath and Co., New York; price, \$1.25).

Prerequisite: English 1.

Adjunct Professor GRIFFITH.

GEOLOGY.

1f. PHYSIOGRAPHY.

Based on Salisbury's *Physiography (Briefer Course)* as a text. This course will deal with the subterranean and surface agencies that modify the surface of the globe; the composition, formation, and structure of rocks; faults, folds, and associated phenomena.

Professor SIMONDS.

1w. GEOLOGY.

Based on the first half of Scott's *Introduction to Geology* (second revised edition).

Professor SIMONDS.

1s. GEOLOGY.

Continuation of Course 1w, completing the text-book.

Professor SIMONDS.

GERMAN.

The number of lessons in each of the following courses will range from fifteen to twenty-five, according to special conditions.

Af. GRAMMAR AND READING.

This will include the declension of the article, the noun, and the adjective; about eighty pages of easy idiomatic German prose. This course is intended for those having little or no knowledge of German

reading or grammar. Thomas's *Practical German Grammar* will be the text-book.

Miss SPAETH.

Aw. GRAMMAR AND READING.

A continuation of Af, including the numerals, the pronouns and the verb as far as the passive voice; about eighty pages of easy, idiomatic German prose. Thomas's *Practical German Grammar* will be used as text-book.

Miss SPAETH.

As. GRAMMAR AND READING.

This will continue the grammar and finish the verb, the particles, and review the work of Af and Aw. About eighty pages of more advanced reading, including an easy play. Thomas's *Practical German Grammar* will be the text-book.

Miss SPAETH.

1f. COMPOSITION AND READING.

This is intended for those who have completed Course A and for others who read German readily but are deficient in grammar.

This course will include the use of the article, the gender, number and syntax of nouns; review of the noun declension, syntax of the adjectives; review of the adjective declension; about eighty pages of more difficult prose reading; exercises and original composition.

Miss ANDREWS.

1w. COMPOSITION AND READING.

This will include the use of the numerals, the syntax of pronouns, the verb as far as the use of moods; about eighty pages of more advanced reading; exercises and original composition.

Miss ANDREWS.

1s. COMPOSITION AND READING.

This will include the use of the moods, the conditional and imperative, the infinitive, the participle, the adverb, the preposition and the conjunction, exercises and original composition; about eighty pages of advanced reading, including Lessing's *Minna von Barnhelm* and Schiller's *Wilhelm Tell*.

Miss ANDREWS.

3. AUFSATZE AND STILUEBUNGEN.

The more difficult principles of syntax and the elements of style will be thoroughly treated in connection with original essays in German and the study of German syntax. Tombo's *Deutsche Reden* will be the text-book.

Associate Professor PRIMER.

4. AUFSÄTZE AND STILÜBUNGEN.

This course is a continuation of Course 3. The syntax will form the principal feature, and graded themes will be based on Tombo's *Deutsche Reden*, used as a text-book.

Associate Professor PRIMER.

GREEK.

Af. BEGINNER'S GREEK.

In this course the study of Greek is begun by the use of Goodell's *The Greek in English* (H. Holt & Co.). This completed, Ball's *Elements of Greek* (The Macmillan Co.) is taken up, with Moss's *Greek Reader* (Allyn & Bacon).

Professor BATTLE and Adjunct Professor PENICK.

Aw. BEGINNER'S GREEK.

This is a continuation of Greek Af. Ball's *Elements of Greek* and Moss's *Greek Reader* will be used as text-books.

Professor BATTLE and Adjunct Professor PENICK.

20s. BEGINNER'S GREEK.

The *Anabasis* of Xenophon is taken up with Goodwin's Grammar.

Professor BATTLE and Adjunct Professor PENICK.

NOTE.—Courses Af, Aw, and 20s go together as the work necessary to enter Freshman Greek (Greek 1). They may not be counted separately. Together they count either (1) as two admission credits plus one third of a course toward the degree, or (2) as one and two thirds courses toward the degree.

6. NEW TESTAMENT GREEK.

This is an elementary course in the reading of the New Testament. It presupposes such a knowledge of Attic Greek as would correspond to Greek Af, Aw, and 20s, described above. It is intended for those who would like to read the sacred books of Christianity for themselves in the original, unbiased by any ecclesiastical interpretation. Westcott and Hort's Text with Lexicon (The Macmillan Co.) is used.

Adjunct Professor PENICK.

NOTE.—Those desiring other work than is here offered are invited to communicate with Professor Battle. If there is sufficient demand other courses may be offered.

HISTORY.

1f. ANCIENT HISTORY.

1w. ANCIENT HISTORY.

1s. ANCIENT HISTORY.

These three courses together will include the history of Greece and Rome to the Fall of the Western Empire. Text-books: Bury's *History of Greece for Beginners*; Pelham's *Outlines of Roman History*; Gibbon's *Decline and Fall of the Roman Empire* (Students' Edition); Putzger's *Historischer Schul-Atlas*.

Dr. DUNCALF.

4f. HISTORY OF ENGLAND.

4w. HISTORY OF ENGLAND.

4s. HISTORY OF ENGLAND.

These three courses will cover the history of England, using Terry's *History of England* for a text-book. The work will include some study of the sources of English history and will pay special attention to the organization of the subject.

Mr. RAMSDALL.

5f. HISTORY OF THE UNITED STATES.

5w. HISTORY OF THE UNITED STATES.

5s. HISTORY OF THE UNITED STATES.

These three courses will together contain a general survey of the United States history from the discovery of America to the present time. A text-book will be used and each student will be expected to do considerable reading in the four volumes of Hart's *American History as Told by Contemporaries*, especial attention being paid to Vol. III.

Mr. WORLEY.

25f. HISTORY OF THE UNITED STATES: THE NATIONALIZING MOVEMENT, 1775-1836.

25w. HISTORY OF THE UNITED STATES: THE NATIONALIZING MOVEMENT, 1775-1836.

25s. HISTORY OF THE UNITED STATES: THE NATIONALIZING MOVEMENT, 1775-1836.

These three are advanced courses in which much collateral reading and writing of historical essays on assigned topics will be required of the student.

Professor GARRISON.

LATIN.

It is to be understood that these courses are designed for earnest and mature students only.

PROSE COMPOSITION.

X. COURSE FOR BEGINNERS.

Text-book: Bell's *Concise Latin Course* (The Macmillan Co.). This course is preliminary to the Caesar courses and does not count toward a degree.

Adjunct Professor PENICK.

2. PROSE COMPOSITION.

Text-book: Ritchie's *Latin Prose Composition* (Longman's, Green & Co.), or Miss Lavender's outline course (mimeographed). This course, if pursued with a high degree of efficiency, can be counted as a one-third course for the bachelor's degree; or, if pursued with less success, will be counted as fulfilling the entrance requirement in prose composition.

Miss LAVENDER.

EASY READING COURSES, PROSE AUTHORS.

L. CAESAR DE BELLO GALLICO (Books II and III).

M. CAESAR DE BELLO GALLICO (Book I).

N. CICERO, PRO LEGE MANILIA.

O. CICERO, TWO OR MORE OF THE ORATIONS AGAINST CATILINE.

These courses will be offered in sequences to suit the other engagements of the instructor, and may be taken by the student in any sequence. In the beginning, at least, any edition of the texts will serve, but all students should provide themselves with the Latin Grammar of Gildersleeve and Lodge (School Edition), to which constant reference will be made in the correction of papers.

Adjunct Professor PENICK.

P. VERGIL, THE AENEID (Book I).

Scansion and phrasing, as well as careful translation, will be taught in this course.

Miss LAVENDER.

NOTE.—The easy reading courses are designed to fulfill the requirements for admission to the regular Freshman work in Latin, and do not count toward a degree.

FRESHMAN COURSES.

- 1w. VERGIL, THE AENEID (Books II-IV).
- 1f. CAESAR, THE CIVIL WAR (Book III).
- 1s. CICERO, WOLFORD'S SELECTIONS (The Clarendon Press).

Only so many students can be admitted to these courses, for the present, as the other engagements of the instructor in charge will permit.

LAW.

NOTE.—The courses in Law which are prefixed by an asterisk are double courses, the fee for each, therefore, being \$14. The other courses contain the usual amount of work.

*ELEMENTARY.

Dean TOWNES.

*CONTRACTS.

Professor HILDEBRAND.

*TORTS.

Dean TOWNES.

CRIMINAL LAW.

Professor TARLTON.

CRIMINAL PROCEDURE.

Professor TARLTON.

AGENCY.

Professor HILDEBRAND.

MINING ENGINEERING.

12f. MINING.

This course is intended to give an insight into prospecting, opening up, and developing mines. The systems of mining coal and ores, and the quarrying of building stones are covered. It describes and gives the use of explosives, miner's tools, machine rock drills, coal mining machines, etc. Other features of practical mining are treated.

Adjunct Professor ROWE.

12w. MINING.

This course is more technical than 12f and deals with the engineering features connected with mining such as drainage, pumping, haulage, hoisting, lighting, ventilation, etc. It includes boring by diamond and other drills for oil and prospecting purposes. The course will be largely descriptive but a number of problems will be solved and designs will be required.

Adjunct Professor ROWE.

15f. METALLURGY.

A brief general course in metallurgy will be followed by a more detailed study of the methods of extracting iron, mercury (quicksilver), and zinc from their ores and preparing them for use. The first part of this course is intended to be preliminary to the study of the metallurgy of all metals.

Adjunct Professor ROWE.

15w. METALLURGY.

This course covers the metallurgy of lead and copper. These metals are mostly treated by smelting methods and often carry gold and silver, hence lead or copper smelting is often the first step in gold or silver extraction. Courses 15w and 15s are, therefore, closely connected, and Course 15w must be taken in order to get fully the metallurgy of gold and silver. Lead and copper refining are covered.

Adjunct Professor ROWE.

15s. METALLURGY.

This course covers the extraction of gold and silver from ores and metallurgical products and refining.

Adjunct Professor ROWE.

PHILOSOPHY.

1f. ELEMENTARY PSYCHOLOGY.

This course takes up the general study of mental processes. Its object is to give a survey of the more important psychological facts, to train the student to observe the processes of his own experience and those of others, and to enable him to appreciate critically whatever he may read along psychological lines. It is introductory to all work in philosophy and an important part of equipment for all other fields of investigation.

Dr. YOAKUM.

2. LOGIC.

This course presupposes Psychology 1f or its equivalent. The object of the course is to point out the laws of clear and logical thought processes. Special attention will be given to logical fallacies and their correction. An illogical mind can seldom if ever be made logical, but the pointing out of defects and the remedies will greatly aid one in his endeavor to think accurately, and speak and write convincingly.

The nature of the course will be text-book work along with careful analytical study of specific arguments selected from the fields of political science, philosophy, religion, etc.

Mr. KEEN.

11s. **ADVANCED PSYCHOLOGY.**

This course presupposes a familiarity with the subject matter of psychology such as may be gained from Course 1f or any equivalent period of careful study in any of the more recent introductory texts. It is a more critical consideration of the problems and methods of psychology, together with a detailed presentation of certain special studies.

Dr. YOAKUM.

15w. **COMPARATIVE PSYCHOLOGY.**

This course presupposes the training of Course 1f or its equivalent and some knowledge of the methods of experimental psychology. It is a presentation of recent careful and scientific studies on the nature of the animal mind and its relation to the human mind. The best methods now used of interpreting human and animal behavior are outlined and explained.

Dr. YOAKUM.

30. **PROBLEMS OF PHILOSOPHY.**

This is a beginner's course in philosophy. Its object is to present in a popular way the problems dealt with in philosophy. Technical terms and methods will be avoided as far as is consistent with accuracy. Among the problems discussed will be the relation of body and mind; pluralism and monism; matter; the soul and personal identity; pragmatism; evolution, and "free will."

This is a lecture course exclusively, but many parallel references will be cited.

Mr. KEEN.

POLITICAL SCIENCE.

38f. **ELEMENTARY POLITICAL SCIENCE.**

This course includes the following subjects: State, Sovereignty, Liberty, and Government. The subjects are treated theoretically and historically.

Professor KEASBEY.

1f. **ELEMENTARY ECONOMICS.**

This course includes the following subjects: Land, Labor, Capital, Money and Banking, and Private Finance. The subjects are treated theoretically and practically.

Professor JOHNSON.

63f. **CORPORATION FINANCE.**

This course describes the organization and management of typical corporations in their financial aspects.

Professor WEBSTER.

61f. TRANSPORTATION.

This course deals with the history and organization of the transportation systems of Texas.

Adjunct Professor POTTS.

74f. FINANCIAL HISTORY OF TEXAS.

This course traces the development and describes the existing system of public finance in Texas.

Dr. MILLER.

PUBLIC SPEAKING.

4. ARGUMENTATION.

In this course a study of the principles of argumentation will be made, using a text-book (*Science and Art of Debate*, University Co-operative Society, Austin, \$1.25). The student will be required to give written answers to questions on the text and on the exercises at the end of each chapter.

Associate Professor SHURTER.

10w. DEBATE.

A critical study of masterpieces in argumentation will be made in this course, the masterpieces being carefully briefed.

Associate Professor SHURTER.

10s. DEBATE.

This course will consist in briefing questions for debate, some of the briefs being later expanded into argumentative compositions.

Associate Professor SHURTER.

8w. ORATORICAL COMPOSITION.

This course will deal with the rhetoric of persuasion, the cultivation of the oratorical style, the writing of a speech as distinguished from an essay. Texts: *The Rhetoric of Oratory* (Macmillan); *Masterpieces of Modern Oratory* (Ginn). There will be much practice in preparing different kinds of speeches.

Associate Professor SHURTER.

PURE MATHEMATICS.

1f. SOLID GEOMETRY.

This course will be based on some standard American text and will include the solution of a considerable number of so-called "original" problems and the careful drawing of a number of figures.

Professor RICE.

1w. PLANE TRIGONOMETRY.

Based on one or more of the numerous texts this course will cover the elements of plane trigonometry. Special attention will be paid to the solution of practical problems and to the concrete side of the subject.

MR. BRODIE.

1s. ADVANCED ALGEBRA.

This work will include the study of quadratic and higher equations, of simultaneous equations, of the progressions, of the binomial theorem, and of logarithms. Special emphasis will be placed on the graphical representation of equations and on the numerical aspect of algebra; attention will be called to identities, to equivalent equations, and to limits. Numerous examples will be solved.

MR. CALHOUN.

15f. ANALYTIC GEOMETRY.

The elementary analytics of the straight line and circle will be given in this course and an effort will be made to put the student in possession of the ideas that underlie the subject. Numerous problems will be solved and a standard text will be used for this and the two following courses.

MISS DECHERD.

15w. ANALYTIC GEOMETRY.

This is a continuation of 15f and will deal with the properties of the ellipse, hyperbola, and the parabola.

MISS DECHERD.

15s. ANALYTIC GEOMETRY.

This is a continuation of 15w and will deal with a few of the higher plane curves and with the beginnings of solid analytic geometry.

MISS DECHERD.

3f. CALCULUS.

This course will include the elements of differential calculus. Differentiation and its applications to maxima and minima, points of inflection and curvature, will be considered as far as time permits. A standard text will be used for this and the following courses.

MR. CALHOUN.

3w. CALCULUS.

This course will include the integration of standard elementary forms and the application of such integrals to areas, volumes, lengths, moments of inertia, and centers of gravity.

MR. CALHOUN.

3s. CALCULUS.

This course will be an extension of the two previous courses.

MR. CALHOUN.

ROMANCE LANGUAGES.

I. FRENCH.

Af. COMPOSITION AND READING.

Downer's *First French Book*; Joyne's *Contes de Fées*; Mérimée's *Colomba*. Prose composition and written translation.

Mr. OSTRANDER.

Aw. COMPOSITION AND READING.

Continuation of Af, using the same texts.

Mr. OSTRANDER.

As. COMPOSITION AND READING.

Continuation of Aw, using the same texts.

Mr. OSTRANDER.

1f. COMPOSITION AND READING.

Fraser and Squair's *French Grammar*; George Sand's *La Mare au Diable*; Victor Hugo's *La Chute*; About's *Le Roi des Montagnes*; Sardou's *Mlle. de la Seiglière*; Thier's *La Campagne de Waterloo*; Daudet's *La Belle Nevernais*; Bazin's *Contes Choisis*.

Course A is prerequisite.

Adjunct Professor VILLAVASO.

1w. COMPOSITION AND READING.

Continuation of 1f, using the same texts.

Adjunct Professor VILLAVASO.

1s. COMPOSITION AND READING.

Continuation of 1w, using the same texts.

Adjunct Professor VILLAVASO.

NOTE.—If there is sufficient demand, other courses may be offered. Inquiries concerning additional work in French should be addressed to Adjunct Professor VILLAVASO. Those desiring courses in Spanish other than those offered are invited to communicate with Associate Professor CASIS.

II. SPANISH.

Af. BEGINNER'S SPANISH.

Hills and Ford's *Spanish Grammar*; Marion Y. des Garenne's *Introducción á la Lengua Castellana*; Asensi's *Victoria y otros Cuentos*; Valdes's *José*; easy sight reading; easy composition.

Miss HUBBARD.

Aw. BEGINNER'S SPANISH.

Continuation of Af, using the same texts.

Miss HUBBARD.

As. BEGINNER'S SPANISH.

Continuation of Aw, using the same texts.

Miss HUBBARD.

1f. GRAMMAR, READING AND COMPOSITION.

Ramsey's *Spanish Grammar*; composition; letter writing; prose reading, some collateral texts, varying from year to year. Examination will include sight reading and translation.

Courses Af, Aw, and As are prerequisite.

Miss HUBBARD.

1w. GRAMMAR, READING AND COMPOSITION.

Continuation of 1f.

Miss HUBBARD.

1s. GRAMMAR, READING AND COMPOSITION.

Continuation of 1w.

Miss HUBBARD.

ZOOLOGY.

16f. GENERAL PHYSIOLOGY AND HYGIENE.

The object of this course is to give the student a general knowledge of the structure and functions of the human body, and of the care of its parts. The work will be arranged so as to be equivalent to, but not identical with, one third of Course 16 of the School of Zoology in the regular catalogue. Besides making a careful study of assigned readings the student will also make a general dissection of a mammal (rabbit or cat), presenting a written report thereon.

This course will not be open before January, 1910.

Dr. PATTERSON.

15w. GENERAL EVOLUTION.

Assigned reading from several standard works. This course will deal fairly and fully with the fundamental evolutionary problems, and can be taken by those who have had no previous zoological training and who desire merely some knowledge of the broader results of the subject.

Professor NEWMAN.

18w. HEREDITY.

Assigned readings from several standard works. This course will be a sequel to that on General Evolution and will deal in much greater detail with the principles of heredity. It may, however, be taken by

students who have had no previous knowledge of Zoology. The following are some of the main topics to be considered: The facts of physical, mental, and moral inheritance; Galton's laws of ancestral inheritance; Mendel's laws; the inheritance of acquired characters; the principles and practice of animal-breeding; the physical basis of heredity.

Professor NEWMAN.

NOTE.—It is hoped that it will be found possible next year to offer correspondence courses in certain aspects of *Economic Zoology*.

II. PUBLIC DISCUSSION AND INFORMATION DIVISION.

A. PUBLIC DISCUSSION AND DEBATING.

The Texas Declaration of Independence declares that "It is an axiom of political science, that, unless a people are educated and enlightened it is idle to expect the continuance of civil liberty or the capacity of self-government." Guided by this wise statement, Texas has created a system of public education reaching from the primary school to the University; guided similarly the University through its public discussion and information division is planning to furnish specific aid to the citizenship of Texas in the discussion of important public questions. This aid the University will attempt to furnish as far as its resources permit, by means of traveling libraries accompanied by specific references to the books and articles contained therein, and by additional references for more extensive reading.

Many important questions are before our citizens, and demand wise solutions. Many people desire to investigate such questions as prohibition, guaranty of bank deposits, city government by commission, prevention of contagious diseases, the initiative, the referendum; but it is difficult for them to secure accurate information. By sending out small traveling libraries containing books and articles relating to an important public question and by preparing careful lists of further books and articles, the University hopes to be of service to public-spirited citizens who desire to form intelligent opinions concerning public affairs.

It is hoped that such traveling libraries and such lists of books and articles will be of real service to members of debating clubs, women's clubs, and labor unions, and to public officials and to many others.

Inasmuch as much labor is required to prepare properly suitable lists of books and articles, and to select and purchase the books for the traveling libraries, it is expected that the Public Discussion and Information Division will not be ready to begin sending out its lists and libraries before January, 1910. Complete details will then be furnished in a bulletin.

B. PUBLIC INFORMATION.

Many questions relating to a vast variety of matters are continually coming into the University, which will continue to attempt to answer as far as possible all legitimate questions by referring them to the various experts in its staff of instruction. Inasmuch as the replies to some questions demand much time and care, the University can not guarantee to make complete investigations in every case, even if paid to do so; but it will do all in its power to put expert knowledge at the service of the people of Texas.

III. LECTURE DIVISION.

Provision has been made to allow members of the staff of instruction of the University to deliver a few lectures in Texas towns when asked to do so. Inasmuch as some care is needed to prevent such lectures from interfering with the work of the class room, arrangements in regard to any of these lectures should be made some time in advance with the Director of the Department of Extension.

The fee for each lecture will be \$25, in addition to the traveling expenses of the lecturer.

It is hoped that these lectures will appeal to such associations as women's clubs, teachers' clubs, literary societies, farmers' clubs, business leagues, county institutes, reading circles, and schools. In many cases a small admission fee will cover the cost of securing the lecturer and will tend to exclude the idly curious.

Each of these lectures, while planned to be popular, will convey a substantial amount of accurate information, and, unless the contrary be explicitly stated, is intended for adults and not for young children. The object is education and not merely entertainment.

When a lecture has been agreed upon, a traveling library selected by the lecturer will be sent when requested to the proper authorities in the town where the lecture is to be delivered for the use of those who intend to hear the lecture. This traveling library will be accompanied by a syllabus of the lecture and by explicit references to the material in the library. In this way the auditors can easily prepare themselves to listen with profit to a lecture. After a lecture an opportunity will be afforded to the listeners to confer with the lecturer, either to clear up difficulties or to develop special points in more detail.

If notified sufficiently in advance, the Department of Extension will sometimes be able to furnish other lectures than those listed below.

In the case of a lecture illustrated by stereopticon, the University will furnish, when asked to do so, the lantern, provided those securing the lecture provide for the electric current and the management of the lantern. All cost for advertising and hall is to be paid by the organization securing the lecture.

LIST OF LECTURES.

Illustrated stereopticon lectures are starred.

APPLIED MATHEMATICS.

- *1. The Sun and Moon.
- *2. The Planets as Abodes of Life.

*3. The Stars.

(1 and 2 may be combined into one lecture, as may also 1, 2, and 3.)

*4. Comets.

5. Time and Tide.

Professor BENEDICT.

BOTANY.

1. The Factory Owners. A consideration of the nutrition of typical green plants.

2. The Primitive Factory Owners. A consideration of nitrification in soils, how accomplished, and the agricultural importance of this process.

3. The Scavengers. A consideration of the work which bacteria and fungi perform in disposing of organic remains.

4. The Robbers. A consideration of the part which bacteria and fungi play in the production of disease in plants and animals.

5. The Profit-sharers. A consideration of mutualistic arrangement between plants, including the problems of the fixation of nitrogen and the maintenance of fertility.

6. The Hunters and Trappers. A consideration of plants which capture prey.

Professor HEALD.

SPECIAL LECTURES.

*1. Symptoms of Disease in Plants. Illustrated by colored lantern slides.

2. Bacteria in Daily Life.

3. The Evolution of Reproduction in Plants. Illustrated by colored crayon drawings and models.

4. The Significance of Color in Plant Life.

Professor HEALD.

EDUCATION.

1. The Life and Educational Services of Martin Luther.

2. Christian Education in the Twentieth Century.

3. The Unification of Educational Forces in Texas.

*4. Some Wholesome Statistics with Respect to Education in the State of Texas. (Two lectures.)

*5. The Public School System of Mexico.

6. The Education of the Modern Woman.

7. The Development of Educational Public Opinion.

8. Socrates, the Man and His Method.

9. Plato's Educational Message to the World.

10. The Status of School Supervision as a Profession.

11. The Determining Factors of the Curriculum of the Secondary School.

12. The Equipment of the Teacher for Successful Work in the Modern Sunday School.

13. Why Jesus of Nazareth is the World's Greatest Teacher.

14. The Contributions of Horace Mann to Educational History.

15. The Modern University: Its Functions and Its Methods.

16. Popular Criticisms that are Directed Against American Education of the Present Day. (Three lectures.)

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